Sacred Medical Order

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Layered Regulatory Structure and the Biology of Healing: From Schrödinger to McWilliams

Abstract

This paper argues that healing is best understood as the restoration of a layered regulatory structure within the living organism. Rather than reducing health and disease to isolated biochemical events, this framework treats life as a self-organizing system operating across energetic, electrical, structural, neural, and microbiotic levels. The historical arc beginning with Schrödinger's question of order in life, extending through Warburg's metabolic pathology, Prigogine's nonequilibrium thermodynamics, Burr's bioelectric field theory, Selye's stress biology, the Hunekes' interference-field concept, Dosch's neural therapy systematization, Voll's electrodiagnostic medicine, Becker's injury current and regeneration research, Pischinger's extracellular matrix theory, Popp's biophoton hypothesis, and McWilliams' microbiotic synthesis, reveals a common insight: living systems maintain coherence through coordinated regulation. Within this tradition, acupuncture, electrotherapy, and neural therapy are not marginal techniques but clinically meaningful methods for influencing the body's regulatory organization and thereby supporting healing.

Introduction

Healing can be defined on several levels, but the most coherent contemporary medical and philosophical accounts converge on a **holistic, transformative process of repair and recovery that moves the person toward wholeness, regardless of whether disease is fully "cured."**

In its narrow, clinical sense, healing is the **biological process of repairing damaged tissue and restoring function** after injury, disease, or surgical intervention. This includes wound healing, fracture repair, and resolution of inflammation, where the body replaces damaged structures with new, functional tissue and re-establishes normal physiological activity.

Modern medicine has achieved extraordinary successes in diagnosis, surgery, pharmacology, and acute intervention. Yet chronic pain, autoimmune dysfunction, persistent inflammation, delayed healing, and stress-related illness continue to challenge a purely reductionist model of disease. These conditions suggest that pathology is often not a simple matter of broken parts or disturbed biochemical pathways, but of disturbed organismic regulation. The organism does not merely contain tissues and organs; it

behaves as an integrated, adaptive system whose coherence can be lost as well as restored. The historical tradition reviewed here provides a compelling intellectual foundation for this view.

The central thesis of this paper is that healing should be understood as a layered regulatory process against the backdrop of aging itself. At each level of biological organization, the organism strives to maintain order through interaction, communication, and adaptation. Disturbance in one layer can propagate through the others, while successful therapy can restore harmony across the whole system. This view does not reject modern biomedicine. Instead, it expands it by situating molecular biology within a broader framework of energetic, bioelectric, structural, neural, and microbiotic regulation.

Schrödinger and the Problem of Order

The modern history of this way of thinking begins with the physicist Erwin Schrödinger and his book *What Is Life?*. In that work, Schrödinger asked how living systems maintain such striking internal order in a universe that tends toward instability and disorder. He located the answer, in part, in the concept of **entropy**, a central quantity in thermodynamics that measures the degree to which energy in a system is dispersed, randomized, dissipated, and no longer available for organized work. In an isolated system, entropy tends to increase over time, which is why, left to itself, matter drifts toward greater chaos and dissipation rather than complex structure. Schrödinger's insight was that life must somehow resist this universal tendency by continuously resist entropy into its environment and import energy and information to sustain internal order.

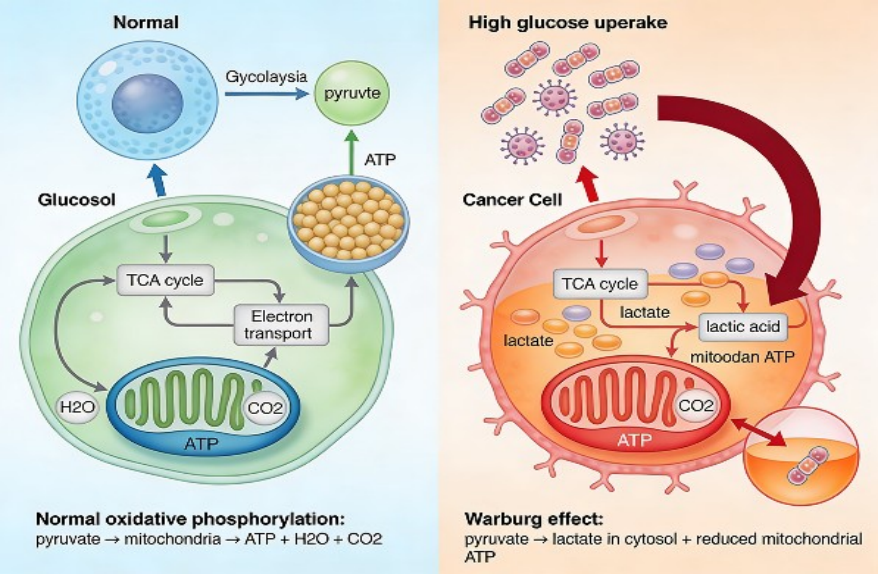
Physicist Erwin Schrödinger made a foundational contribution to quantum mechanics by formulating **wave mechanics** and the **Schrödinger equation**, which describes how the quantum state of a physical system evolves over time. In 1926, building on Louis de Broglie's idea that matter has wave-like properties, Schrödinger introduced a differential equation whose solutions, called **wave functions**, yield the allowed energy levels and spatial distributions of electrons in atoms and molecules. This approach gave a rigorous mathematical framework to Niels Bohr's earlier atomic model and showed that the quantization of energy emerges naturally from the wave nature of particles. Schrödinger's work, later recognized with the 1933 Nobel Prize in Physics, helped establish quantum mechanics as a coherent theory and remains central to our understanding of atomic structure, chemical bonding, and the probabilistic behavior of the microscopic world.

Schrödinger did not propose a therapy, but he reframed biology as a problem of **physical organization** rather than a collection of mechanical parts and random chemical collisions. In his view, life is not a static substance, but a dynamic, energy-driven process that actively maintains non-equilibrium order against the prevailing pull of entropy. This perspective is essential to later therapeutic thinking, because it means that organisms are not passive objects but self-organizing systems whose health depends on the ongoing maintenance of regulatory coherence of both energy and structure. If the body is understood as a system that must continually resist entropy and chaos, then healing appears less as a matter of replacing damaged parts and more as the restoration of an organized, ordered state across energetic, electrical, structural, neural, and microbiotic levels. In this sense, Schrödinger opens the conceptual door to all field-based, regulatory, and systems-oriented approaches to medicine.

Warburg and Energetic Disease

Warburg advanced the problem by placing cellular energetics at the center of pathology. His work on respiration and cancer highlighted that disease may involve fundamental disruption of energy handling at the cellular level. Though his interpretations remain debated in modern biology, the historical significance of his work lies in showing that function and dysfunction depend on energetic state, not merely on structure.

Warburg's work occupies a pivotal place in the history of cancer pathology because he shifted attention away from purely structural or genetic explanations of malignancy and toward the **cellular handling of energy**. In a series of experiments in the 1920s, Otto Warburg observed that many cancer cells generate most of their energy through **aerobic glycolysis**—a process in which cells consume large amounts of glucose and convert it to lactate even in the presence of oxygen—rather than through efficient mitochondrial oxidative phosphorylation as in most normal tissues. This phenomenon has since become widely known as the **"Warburg effect."** Though it was initially framed as a defect in respiration, the Warburg effect is now recognized as a distinctive metabolic signature of many tumors.



What makes Warburg's contribution so durable is that the Warburg effect has not been discarded, even as oncology has embraced molecular genetics. Instead, the altered energy metabolism he described has become one of the fundamental hallmarks of cancer pathology. Modern research shows that the Warburg effect is not simply a passive byproduct of disease, but a regulated adaptation that supports rapid cell proliferation, biosynthetic demands, inhibited apoptosis, and the altered redox and signaling environment of the tumor microenvironment. In this sense, Warburg's work revealed that **energy management is not secondary to cancer, but central to its biology.**

Warburg's findings thus support the broader claim that health and disease cannot be reduced purely to anatomy or isolated biochemical pathways. Cells that fail to manage energy properly cannot sustain repair, signaling, or adaptive responses. In this light, healing is not only a structural or chemical issue, but an energetic one. Warburg's insight helps shift medical thinking from a static, mechanistic view of disease to a dynamic, metabolic perspective, in which the body's capacity to generate, deploy, and coordinate energy becomes central to understanding both pathology and recovery.

Prigogine and Self-Organization

Ilya Prigogine provided the next major theoretical advance by demonstrating that biologic order spontaneously arise, grow and function as **open systems far from thermodynamic equilibrium**, a concept he formalized under the theory of **dissipative structures**. In this framework, stable, organized patterns—such as convection cells, chemical oscillations, and living organisms—maintain themselves not by being closed and self-contained, but by continuously exchanging energy and matter with their environment and exporting entropy. This directly challenges the older, mechanistic medical model that implicitly treated the body as a **closed, machine-like system**, where illness was framed as a broken part or chemical to be replaced or adjusted, and recovery meant a return to a fixed, idealized state.

In light of this, Prigogine's work reframes the body as a **dynamic, open, self-organizing system** whose order is sustained by the flow of energy and information. Healing, therefore, is not a simple rollback to a prior, undisturbed configuration, but a **reorganization into a new stable pattern** under changed continuously changing (environmental) conditions. In this view, recovery is a self-organizing process in which the organism harnesses energetic flow to reestablish functional coherence. This perspective is critical for biology because it shows that living systems are not closed machines; they are embedded in a continuous exchange with their environment. As a consequence, regulatory, bioelectric, and matrix-based models of healing—including acupuncture, electrotherapy, and neural therapy—become not only more coherent, but more scientifically plausible, because they align with the idea that living order is maintained through flow, exchange, and adaptive reorganization.

Burr and the Bioelectric Field

Harold Saxton Burr developed one of the earliest explicit field theories of living organisms. Using microvolt measurements on plants and animals, he proposed that organisms possess bioelectric fields associated with growth, organization, and even disease processes. Burr's significance lies in his insistence that the body is not only biochemical but also bioelectric.

His work is especially important because it gives a measurable physiological basis to the idea that living systems are organized by electrical discharges and patterns. Establishing such fields exist, then they may be altered by injury, stress, or even restructured with therapy. Burr therefore provides a conceptual bridge between abstract systems theory and clinical intervention. His work anticipates later interest in acupuncture, electrotherapy, and other modalities that influence the body through precise stimulation.

Selye and Adaptation to Stress

Hans Selye's general adaptation theory added a crucial dimension to this lineage by showing that chronic stress can overwhelm biological regulation. His model demonstrated that disease may result not from one event but from prolonged maladaptation. This is highly relevant to chronic illness, where symptoms often persist because the organism cannot return to a balanced, coherent state.

Selye's contribution is especially valuable because it frames health as resilience. The organism is always responding to demands, and pathology arises when the adaptive response is exhausted or distorted. This view aligns with the regulatory medicine tradition because it places stress, fatigue, and systemic imbalance at the center of clinical reasoning.

Huneke and Interference Fields

The Huneke brothers extended this regulatory perspective into clinical practice through the concept of interference fields. They argued that chronic local disturbances, such as scars or old injuries, can maintain distant symptoms through autonomic or regulatory disruption. This theory is clinically important because it treats local tissue pathology as a systemic phenomenon. caringmedical

The Huneke model resonates strongly with acupuncture and neural therapy. It suggests that the organism can remain trapped in pathological patterns when a hidden disturbance fields like scars from trauma continue to send abnormal signals. In this context, the therapeutic task is not merely to suppress symptoms but to remove the source of disturbance and thereby restore regulatory freedom.

The Huneke model today resonates strongly with acupuncture and neural therapy. It suggests that the organism can remain trapped in pathological patterns when hidden disturbance fields—such as scars from trauma or old injuries—continue to send abnormal signals into the autonomic nervous system. Integral to their philosophy is the **“segmental phenomenon,”** later sometimes called the **“second field”** or **“Segundun phenomenon,”** which describes how an interference field in one body segment can generate reflexive effects in distant, functionally linked segments via autonomic and neural pathways. In this context, the therapeutic task is not merely to medicate symptoms but to locate and neutralize the source of disturbance—the scar, the old lesion, or the hidden irritation—thereby breaking the abnormal signal loop and restoring the organism’s regulatory freedom.

Dosch and the Systematization of Neural Therapy

Peter Dosch’s contribution lies in systematizing the Huneke approach into a more teachable and clinically reproducible framework. His work helped define neural therapy as a structured medical method rather than a collection of anecdotes. This is an important historical step because practical medicine becomes durable only when its principles can be transmitted and consistently applied.

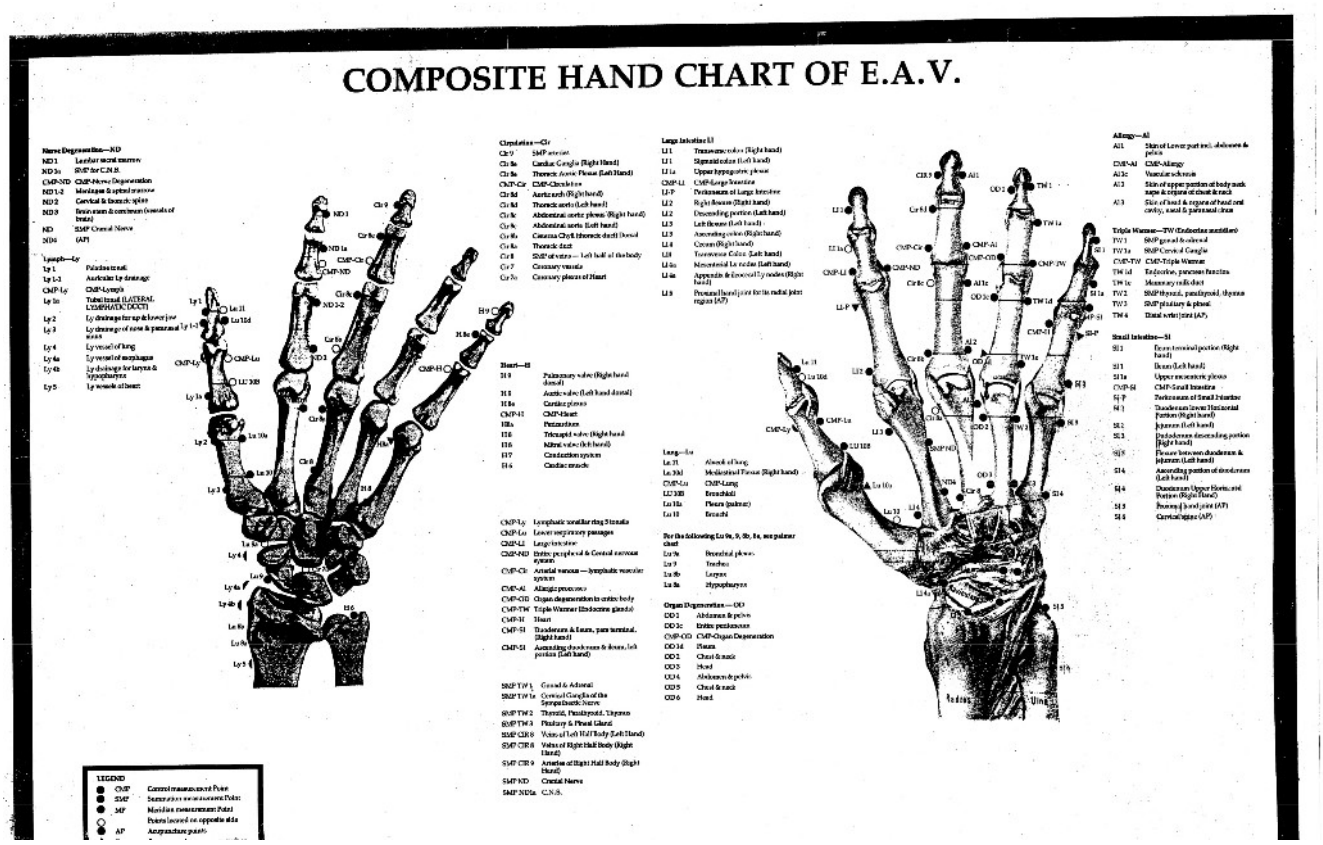
The significance of Dosch is therefore methodological as much as conceptual. He helped transform interference-field thinking into a coherent clinical discipline. In doing so, he reinforced the idea that regulation can be therapeutically influenced through precise local intervention.

Voll and Electrodiagnostic Medicine

Reinhold Voll expanded the clinical relevance of bioelectric regulation through transdermal electrodiagnostic and electrotherapeutic methods. His work, *Electroacupuncture accord to Voll* (EAV) treated the body as a responsive system whose functional state could be probed electrically and influenced through stimulation. This contributed to the broader recognition that biological regulation is measurable and modifiable at the electrical level.

Over many years, Voll and his colleagues systematically mapped cutaneous electrical response patterns along the body’s surface, correlating them with traditional Chinese acupuncture meridians. By recording changes in electrical impedance and skin conductance at specific points, they found that these pathways—once regarded as purely energetic constructs—could be given identifiable anatomical and physiological correlates tied to neurovascular bundles, fascial tracts, and reflex zones. In this way, Voll and his team helped bridge ancient acupuncture theory with modern bioelectric measurement,

demonstrating that the meridians could be understood not only as symbolic routes but as measurable, functionally organized fields of regulation that respond to electrical stimulation. This mapping effort reinforced the idea that acupuncture points and meridians occupy a real, electrically excitable interface within the body's regulatory landscape.



Voll's importance for the present thesis is that he connects systems theory to practical intervention. If the body expresses functional states electrically, then acupuncture-like stimulation and other electrotherapeutic methods become intelligible as means of influencing regulation. His work thus forms a bridge between theoretical bioelectricity and clinical practice.

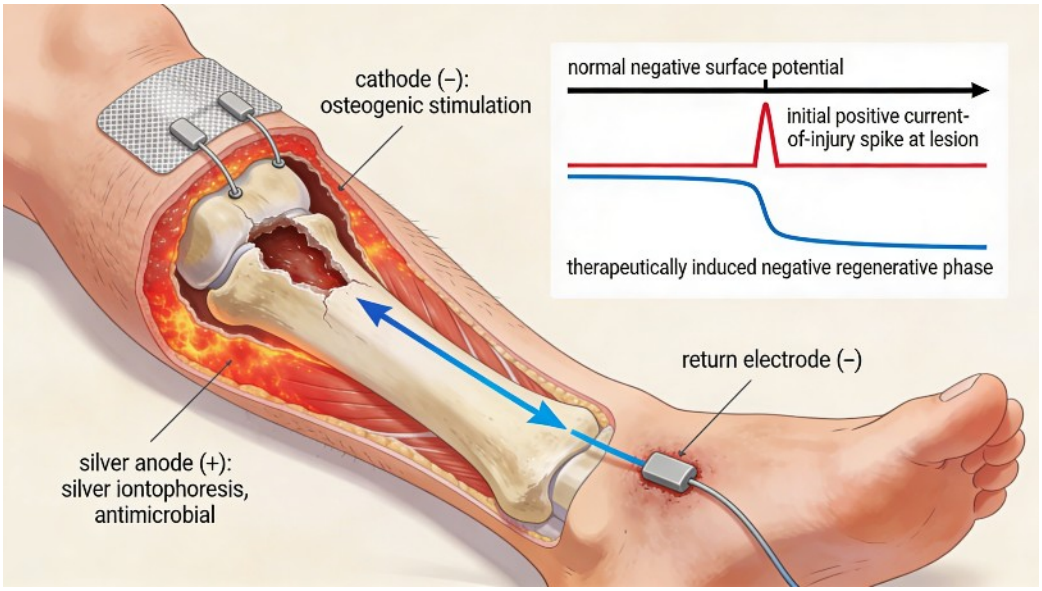
Becker and Injury Currents

Robert O. Becker deepened the bioelectric perspective by demonstrating the significance of injury currents in regeneration. His research suggested that damaged tissue generates electrical signals that contribute to repair processes. This is a major conceptual advance because it makes injury itself an active regulatory event rather than a passive deficit.

Becker's findings support the view that healing is bioelectric at its core. The wound is not simply a lesion to be repaired; it is a dynamic site of reorganization. This insight has clear implications for acupuncture and electrotherapy, which can be understood as ways of influencing the body's own repair currents and regenerative responses.

Becker demonstrated this bioelectric view of healing through a series of rigorous experiments on bone fracture repair using electrical stimulation. In animal models, he showed that partial fractures of the forelimb, when left to heal naturally, typically resulted in only cartilaginous callus formation and

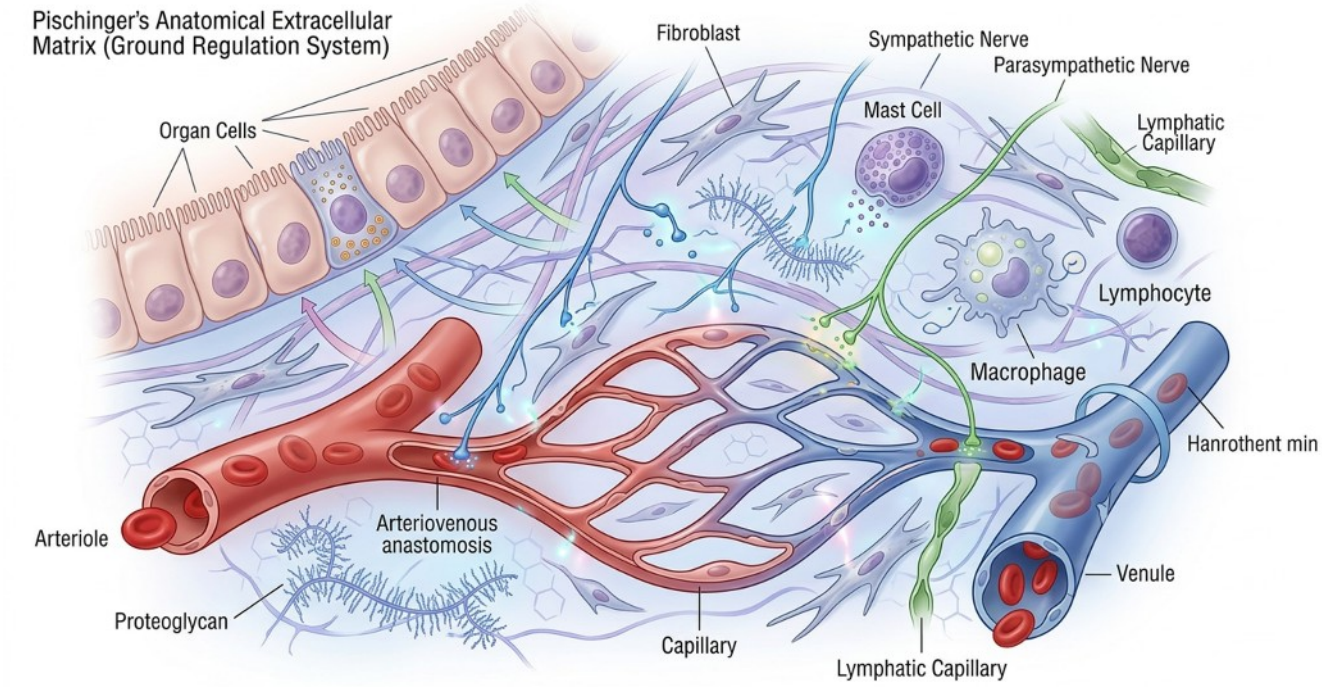
incomplete regeneration of the bone. However, when he applied controlled direct-current electrical stimulation across the fracture site, the animals developed full, bony repair, with histological evidence of true osteogenesis rather than mere fibrous or cartilaginous healing. Not only did the electrical field promote the formation of new bone, but Becker also reported successful regeneration of complete forelimbs in certain amphibian studies, where the application of specific currents triggered the regrowth of structurally organized bone and connective tissue. These findings provided strong empirical support for his claim that endogenous electric *injury currents* are not passive byproducts of damage, but active, regulative signals that can be augmented or modulated by external electrical fields and devices. In this light, Becker's work offers a concrete scientific basis for the use of electrotherapy and acupuncture-style stimulation as methods developed by Voll and colleagues of guiding the body's intrinsic bioelectric healing machinery toward more complete structural restoration.



Pischinger and the Matrix

Pischinger's matrix theory broadened the model further by emphasizing the extracellular matrix as a living regulatory environment. Rather than being inert filler, the matrix is understood as a dynamic medium linking capillaries, nerves, immune function, nutrition, detoxification, and connective tissue. This theory is especially useful because it grounds the concept of regulation in actual tissue architecture.

Pischinger thus provides a structural basis for the layered model of healing. If the matrix is a regulatory ground, then disturbance at that level can affect the entire organism. This helps explain why chronic dysfunction often does not respond to narrowly localized treatment and why therapies that influence the broader terrain may be more effective.



Pischinger's matrix theory broadened the model of tissue regulation by placing the extracellular matrix and interstitial fluid at the center of lymphatic drainage, hydration, and detoxification. In his view, the ground system is the primary interface where capillary filtration, interstitial fluid dynamics, nutrtion, electrolyte, and lymphatic uptake are coordinated. Efficient lymphatic drainage depends on a well-structured matrix that allows fluid, proteins, nutrition, and metabolites to move freely toward lymphatic capillaries. When the matrix becomes congested, dehydrated, or chemically altered, both nutrient delivery and waste removal are impaired, leading to local (tissue) acidosis, edema, and regulatory "traffic jams" that predispose to chronic inflammation. Conversely, adequate hydration, good microcirculation, and intact lymphatic flow help maintain the matrix in a fluid, permeable state, allowing effective cell–matrix communication, rapid clearance of toxins, and restoration of homeostasis throughout the tissue environment.

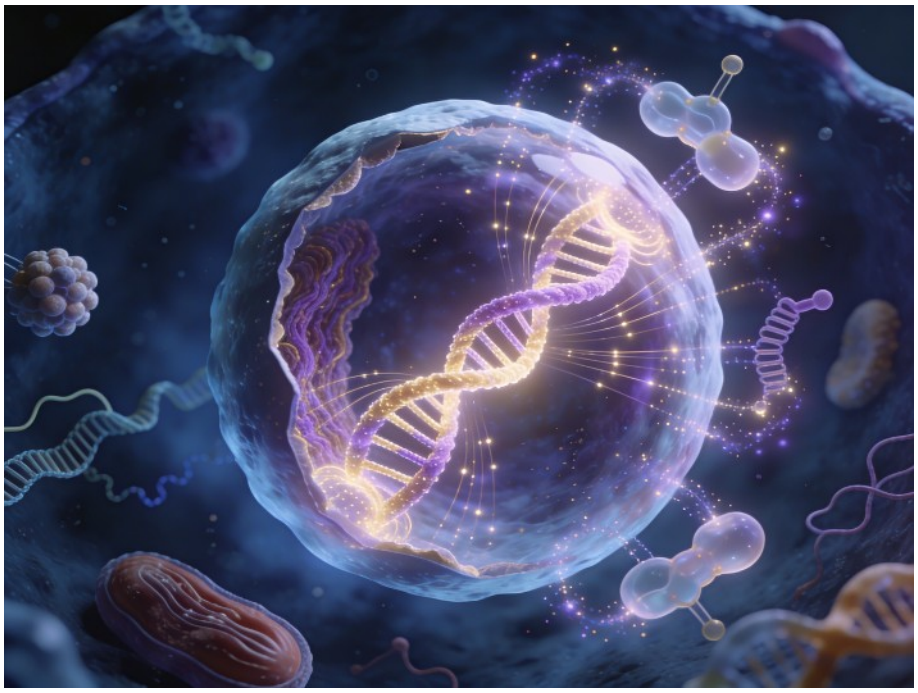
Popp and Biophotonic Signaling

Fritz Popp extended the regulatory tradition into the domain of light. His biophoton theory proposed that living cells emit ultra-weak photons that participate in communication and regulation. Although controversial in some of its broader claims, Popp's work is historically important because it widens the possible physical modalities of biological coordination.

Popp's work on biophotons deepens the picture of the organism as an information-processing system rather than a purely chemical machine. By showing that living cells emit ultra-weak, highly ordered light and arguing that this emission can be coherent rather than random, he suggests that biological regulation may include optical communication channels alongside molecular signaling. In such a framework, DNA, cell membranes, and the cytoskeleton are not only structural and biochemical entities but also potential optical elements that store, modulate, or transmit information through photon emission and absorption. This makes the organism **multi-layered** in a literal physical sense: regulatory

information can be encoded in chemical gradients, electrical potentials, mechanical tensions, and light patterns that all interact.

From a healing perspective, Popp's contribution is to recast illness as a disturbance of coherence across these layers rather than a defect at a single level. If biophotonic emissions reflect the degree of order in cellular processes, then disrupted light patterns would mirror disordered metabolism, dysregulated electrical activity, or chaotic matrix signaling. Recovery, in turn, can be conceived as the re-establishment of phase, rhythm, and pattern—what could be called a re-coherence of the system. This dovetails with the layered regulatory model you are developing: interventions such as acupuncture, electrotherapy, and neural therapy may influence not only local chemistry and membrane potentials, but also the global informational "tone" of the organism. Popp therefore reinforces the thesis that healing is fundamentally about restoring coordinated order across chemical, electrical, mechanical, and optical domains, so that the whole system once again behaves as a coherent, self-organizing unity.



McWilliams and the Microbiotic Synthesis

I complete this layered framework by emphasizing the microbiotic underworld of coexistence. In this view, the body is not a sealed human system but a habitat in which bacteria, fungi, viruses, and plasmids participating in regulation and healing. Contemporary microbial research supports the idea that symbioses between fungi and bacteria are widespread and biologically significant, and that plasmids can influence bacterial adaptation and symbiotic function. We of course recognize the importance of the gut microbiome, but further, the internal workings and "cross-talk" with gut secretory compounds that communicate with intracellular organelles.

Microbiotics™, in this sense, can be defined as the systematic study of the regulatory role of the total microbial consortium—bacteria, fungi, viruses, archaea, and their mobile genetic elements—in the maintenance and restoration of host order, extending the symbiogenetic tradition of Lynn Margulis and the microbiological insights of **Konstantin Mereschkowski**, the Russian biologist and botanist who

first formulated the theory of **symbiogenesis** in the early 20th century. It takes seriously the idea that the human organism is a holobiont: a composite being whose physiology and adaptability emerge from intimate, evolutionarily stable partnerships with microbes rather than from an isolated human genome alone. Nowhere is this clearer than in the mitochondrion, an inclusive microbe of ancient bacterial origin whose endosymbiotic incorporation into early eukaryotic cells made complex, energy-intensive life possible. Mitochondria remain semi-autonomous, with their own DNA, membranes, and signaling functions, and they sit at the nexus of metabolism, redox balance, apoptosis, gut microbiome cross-talk, and innate immunity. Within a microbiotic framework, mitochondria are not merely "organelles" but central members of the host's microbial parliament, meaning that healing and degeneration alike must be understood as outcomes of a negotiated energetic and informational relationship between human cells and their ancient microbial partners.

Building on the layered regulatory model of healing, one can also situate the chronic disease concept of **mochlosis** and the work of **Günther Enderlein** within the same broader framework of microbial regulation and host coherence. Enderlein's observations of what he described as "pleomorphic" microorganisms shifted attention toward the idea that certain chronic conditions may reflect long-standing, morphologically variable microbial processes rather than simple exogenous infections. In this view, mochlosis represents a dysregulated state in which the host's internal microbial ecology becomes disordered, generating persistent, low-grade challenges to homeostasis. From a microbiotic perspective, such conditions highlight the importance of medical science and the judicious use of targeted antibiotics, which can play a crucial role in collapsing overtly pathogenic elements of the microbial consortium and thereby restoring regulatory balance. At the same time, the persistence of pleomorphic and "stealth" forms—such as cell-wall-deficient or intracellular organisms—underscores the limits of purely antimicrobial strategies, since these variants may evade detection and conventional treatment while continuing to perturb the host's regulatory state.

A more complete therapeutic approach must therefore address the **foundational conditions of the internal terrain**, especially the stabilization of the body's pH and ionic balance, which are central to maintaining homeostasis and mitochondrial function. Acidity or alkalinity shifts, electrolyte imbalances, and redox stress can all create an environment where dysbiotic and stealth microbial forms thrive, while impairing the host's ability to clear and repair. In this sense, **Microbiotics™** can be defined as the systematic study of the regulatory role of the total microbial consortium—bacteria, fungi, viruses, archaea, and their mobile genetic elements—in the maintenance and restoration of host order. It extends the symbiogenetic tradition of **Lynn Margulis** and takes up the early-20th-century insights of the Russian biologist **Konstantin Mereschkowski**, who first articulated the theory of symbiogenesis. Microbiotics recognizes that the human organism is not a genetically isolated entity, but a **holobiont**: a composite being whose physiology and adaptive range emerge from intimate, evolutionarily stable partnerships with microbes rather than from the human genome alone.

Mitochondrial health, viewed now as a microbe of ancient bacterial origin, rather than a mere biochemical pathway organlle, whose endosymbiotic incorporation into early eukaryotic cells made complex, energy-intensive life possible, is now central to understanding chronic disease and cancer. When bodily, systemic negotiation breaks down—through genetic vulnerability, environmental stress, stealth microbial forms, chronic toxemia, and a dysregulated matrix and pH conditions—chronic disease and mochlosis may emerge. Conversely, by restoring the micro-environmental and regulatory coherence of the holobiont, including pH stability, matrix integrity, and balanced microbial signaling,

integrative therapies such as acupuncture, electrotherapy, and neural therapy can support the organism's intrinsic capacity to reestablish layered regulatory order.

Within the Enderlein/Microbiotics™ framework, **mochlosis** can be understood as a **stuck pathogenic cycle**, or a chronically dysregulated microbial–host vibrational circuit that resists normal resolution. Enderlein himself described mochlosis as a dangerous disturbance of the normal symbiotic balance between the host and its endogenous microbial "bionts"; when that balance breaks down, primitive forms proliferate, aggregate into filits and nets, and initiate a progressive slide toward disease, often under conditions of abnormal pH and milieu stress. This works out in the clinic as more than theory, it can be directly viewed in blood microscopy.

In this view, mochlosis is not simply an infection; it is a self-perpetuating loop in which:

- the host terrain becomes chemically and energetically compromised (particularly pH and redox),
- microbial consortia shift toward more pathogenic or "up-evolved" stages,
- these evolving forms embed in tissues in stealth and pleomorphic forms,
- and the system remains "stuck" in a low-grade, chronic inflammatory and dysregulatory state.

Microbiotics™ therefore treats mochlosis as a **regulatory pathology of the holobiont**: a cycle that can be interrupted by targeted antibiotics, immunomodulation, and milieu therapy, but that often persists in the face of such chemical interventions precisely because pleomorphic, intracellular, and matrix-embedded forms evade clearance, and remains embedded in a nexus of current of injury. Stabilizing the body's pH and ionic milieu becomes foundational, because it alters the conditions in which these shifted microbial forms can thrive or regress. In this larger sense, mochlosis exemplifies the core idea of layered regulation: healing must address not only the microbial participants, but also the host's energetic (current of injury) and pH-dependent environment if the cycle is to be broken and order restored.

This microbiotic synthesis is crucial because it relocates healing within an ecological relationship with the microbiome rather than a purely human, genetic framework. Health is not merely the absence of pathogens, but a dynamic, living state of negotiated coexistence between host tissues and their microbial partners. Regulatory processes therefore extend deep into the microbiome, cellular "organelles", bodily energetics, and psyche, it into the broader ecological and biochemical context of the organism. In this light, the individual's lifestyle, habitus, constitutional tendencies, and dietary patterns cannot be regarded as secondary influences; they are central determinants of the terrain in which healing either flourishes or founders.

Acupuncture, Electrotherapy, and Neural Therapy

Taken together, these historical lines of thought support a clinically powerful conclusion: acupuncture, electrotherapy, bodywork, and neural therapy can be understood as methods of influencing layered biological regulation. Acupuncture acts on precise points that influence systemic signaling and autonomic balance. Electrotherapy makes the bioelectric dimension explicit through controlled

stimulation. Neural therapy targets interference fields, scar tissue, blocked nerves, and chronic disturbances that maintain dysfunctional states. Bodywork functions as a manual modulation of the connective-tissue and fascial matrix, lymphatic drainage and detoxification, thereby influencing the structural and mechanical layer of regulation and helping to release tension patterns that otherwise sustain autonomic and neuro-matrix dysregulation.

The most significant shared regulatory therapeutic emerging from these four modalities is the **reversal or neutralization of the current of injury** as a chronic, pathogenic signal. In Becker's and Gdanski's terms, when tissue damage and microbial activity keep the current of injury "switched on," the injury field ceases to be a transient repair cue and becomes a persistent driver of pathological replication, disordered enzymatic activity, mochlosis, and tumorous transformation. Acupuncture, electrotherapy, and neural therapy can all be understood as strategic methodologies to collapse this aberrant field: discharging pathological charge in scars, tumors, inflammatory foci, trigger points, and interference fields, restoring normal polarization at cell membranes, and re-establishing the physiological on–off cycling of repair currents so that replication stops when structural integrity is restored. In this regulatory view, the clinical aim is not simply to stimulate healing, but to **extinguish the maladaptive current of injury**—to turn off the bioelectric command for persistent inflammation (rubor, tumor, dolor, calor) and uncontrolled growth—thereby shifting the tissue field back toward ordered differentiation, immune competence, and normalized matrix communication.

What unites these methods is not just a single mechanism of action, but a shared regulatory logic. They aim to restore coherence in a disturbed system - cellular, circulatory, hormonal, and neural. If the organism is organized across energetic, electrical, structural, neural, glandular, and microbiotic layers, then effective therapy must be capable of influencing one or more of these levels. Their value lies in their capacity to participate in the body's own self-organizing drive toward repair and homeostasis.

Clinical and Philosophical Implications

The layered regulatory model has important implications for medical practice. A physician who understands only isolated pathology may overlook the deeper conditions that sustain disease: chronic stress, autonomic imbalance, tissue interference, matrix dysfunction, microbial dysbiosis, and energetic depletion. A physician informed by this tradition sees the patient as an integrated system in which symptoms are signals of broader regulatory disturbance.

Within this framework, the clinical importance of reversing or neutralizing the current of injury as a chronic, pathogenic signal cannot be overstated. Decades of accumulated experience in electrotherapy, neural therapy, acupuncture, and bioelectric medicine converge on the observation that when this field remains pathologically “on,” it becomes the decisive variable that either permits or blocks resolution of a chronic condition. In practical terms, the current of injury can be understood as the core pathological site underlying not only the patient’s overt expression of pain, but also the focal generator of recidivist inflammatory aggravation that repeatedly reactivates and destabilizes any system drawn into the clinical picture—musculoskeletal, autonomic, immune, endocrine, or microbiotic. Within these academic circles, the working consensus is that unless this abnormal field is discharged, reversed, or neutralized at its source—scar, traumatized matrix, chronically depolarized membrane, or infected terrain—other therapeutic measures remain palliative at best, because the primary bioelectric command

to inflame, replicate, and destabilize continues to reverberate through the organism's layered regulatory structure.

Within this clinical paradigm, the first task is the **identification of all potential sites of a persistent current of injury**, since any unrecognized focus can serve as a chronic driver of dysregulation. These sites include obvious scars from trauma and prior surgeries—orthopedic incisions, abdominal operations, cesarean sections, cosmetic procedures—as well as frequently overlooked fields such as tooth and tonsil extraction scars, including residual cavitations in the jaw and fibrotic tonsillar beds. Equally important are granulomas, infected or devitalized teeth, chronically inflamed tonsils and sinuses, and micro-inflammatory foci such as nasal or colonic polyps, endometrial implants, or low-grade prostatitis. Focal inflammations of this kind can occur in nearly every organ system, often occult or subclinical, yet still capable of sustaining a localized zone of altered membrane potential, ionic flux, and inflammatory signaling. From a regulatory perspective, each such locus is a candidate "battery" for a pathologic current of injury; comprehensive assessment and targeted neutralization of these fields becomes essential if one intends not merely to palliate symptoms but to dismantle the deeper drivers of chronic pain, autonomic dysregulation, and recurrent inflammatory relapse.

All of these seats and foci of inflammation are richly innervated by autonomic fibers, which makes them **directly accessible** to a broad range of regulatory interventions within this framework. Because sympathetic and parasympathetic terminals are interwoven through scars, dental fields, tonsillar beds, sinus mucosa, pelvic and visceral tissues, these loci can be modulated by acupuncture, neural therapy, trigger-point injections, auricular therapy, applied kinesiology procedures, electrotherapies, physical and manual therapies, and related approaches that act on neurovegetative tone. In practice, any therapeutic method that measurably relieves pain, reduces local edema, and calms autonomic hyperreactivity is, in effect, accelerating the resolution of the local current of injury. When these diverse modalities are interpreted through the lens of the layered regulatory model—rather than as isolated techniques—they become more intelligible and more powerful, because the practitioner can deliberately select and combine them to neutralize pathological currents of injury and restore coherent signaling across the entire regulatory hierarchy.

This does not mean abandoning conventional medicine. On the contrary, it means enriching it. Laboratory data, imaging, and pharmacology remain essential. But they are not sufficient for a full understanding of healing. Clinical practice becomes more complete when it recognizes that focal currents of injury require restoration which often requires regulation, not merely intervention. The scientific literature, together with decades of clinical application in electro-biology, orthopedics, cardiology, and integrative medicine, supports the conclusion that these currents of injury are genuinely **electrical, hyperpolarized phenomena** that often do not self-resolve with the mere "tincture of time." They tend to persist as localized zones of altered membrane potential and ionic flux, even when pain waxes and wanes, and even when routine anti-microbial or anti-inflammatory treatments have been applied. Such pharmacological measures may palliate the inflammatory focus—reducing edema,

suppressing symptoms, or temporarily quieting cytokine activity—yet they frequently fail to reverse the underlying bioelectric field of the current of injury, allowing the pathological command to "repair and replicate" to remain chronically engaged. Within the layered regulatory framework, treatment by acupuncture, electrotherapy, and neural therapy can all be understood as strategic methodologies to **collapse this aberrant field**: discharging pathological charge in scars, tumors, inflammatory foci, trigger points, and interference fields; restoring normal polarization at cell membranes; and re-establishing the physiological on–off cycling of repair currents so that cellular replication ceases once structural integrity is re-established.

Conclusion

The historical development from Schrödinger to McWilliams reveals a coherent and persuasive vision of healing as layered regulatory order. Schrödinger posed the problem of life's organization; Warburg emphasized biochemical, energetic dysfunction; Prigogine showed how order can emerge in open systems; Burr, Becker, and Popp illuminated the bioelectric and informational dimensions of living processes; Selye highlighted stress and adaptation; the Huneckes, Dosch, and Voll translated regulation into clinical intervention; Pischinger grounded the model in connective-tissue matrix; and McWilliams extended it into microbiotic ecology. Together, these thinkers support a more comprehensive medical understanding of the organism as a self-organizing system whose healing depends on the restoration of coherence across multiple layers of biological reality.

In this view, acupuncture, electrotherapy, neural therapy, and microbiotics are not marginal techniques, but practical expressions of a deep principle: the body heals when its regulatory structure is brought back into harmony. Medicine, therefore, should be understood not only as the treatment of disease, but as the art of restoring layered regulatory balance in the living organism.

ABOUT THE AUTHOR

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Key books for continued reading

- **Erwin Schrödinger** – *What Is Life?*
- **Otto Warburg** – *The Metabolism of Tumours*; "On the Origin of Cancer Cells."
- **Ilya Prigogine** – *From Being to Becoming*; *Order Out of Chaos* (with I. Stengers).
- **Harold Saxton Burr** – *The Fields of Life*; *Blueprint for Immortality*.
- **Robert O. Becker** – *The Body Electric*; *Cross Currents*.
- **Hans Selye** – *The Stress of Life*; *Stress in Health and Disease*.

- **Huneke brothers; Peter & Mathias Dosch** – *Manual of Neural Therapy According to Huneke*.
- **Reinhold Voll; Morell & Kramer** – *Electroacupuncture According to Voll* and related EAV texts.
- **Alfred Pischinger** – *The Extracellular Matrix and Ground Regulation*.
- **Fritz-Albert Popp** – *Biology of Light*; *Recent Advances in Biophoton Research and Its Applications.*
- **Konstantin Mereschkowski** – classic symbiogenesis papers (English translations).
- **Lynn Margulis** – *Symbiosis in Cell Evolution*; *Acquiring Genomes*.
- **Edward Gdanski** – *Cancer: Cause, Cure and Cover-Up*.
- **McWilliams** – *Electric Healing*.
- **McWilliams** – *Electroacupuncture (According to Voll), Vol. I & Vol. II*.
- **McWilliams** – *Touch Diagnosis: It's All Palpitory*.
- **McWilliams** – *The Ten Dimensions of Homeopathic Medicine*.
- McWilliams – *Microbiotics (in progress)*